## MISSOURI OIL AND GAS COUNCIL

## APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

| APPLICATION   | TO DRILL                       | DEEPEN                                | PLUG BA                                      | ACK 🗆                          |                         |
|---|--------------------------------|---------------------------------------|--|--------------------------------|-------------------------|
| NAME OF COMPANY OR OPERATOR   | MO 650                         | 1 - Sur                               | UEY  | DATE /-                        | -77                     |
| POBOX 250   | Po                             | 111                                   |  | mo                             |                         |
| Address   | Cit                            | У                                     |  | Stat                           | te                      |
|   | DESCRIPTION OF                 | WELL AND LE                           | EASE   |                                |                         |
| Name of lease  ERDA TS  |                                | Well nu                               | mber /2-S                                    | Elevation (                    | •                       |
| WELL LOCATION   | (give footage from             | section lines)                        | (W) sec. line                                |                                |                         |
| WELL LOCATION Section 35 To   |                                |                                       |  | BARton                         | V                       |
| Nearest distance from proposed location to property or lease line:  |                                |                                       | location to neares<br>for well on the san    |                                | feet                    |
| Proposed depth: 15-8  | Rotary or Cable                | ools                                  | Approx                                       | . date work will start         |                         |
| Number of acres in lease:   |                                |                                       | vells on lease, inclu<br>or drilling to this | uding this well,<br>reservoir: |                         |
|   |                                | Number of                             | of abandoned well                            | s on lease:                    |                         |
|   | 385                            |                                       |  | o. of Wells: produci           | ng                      |
| Status of Bond  | 55                             |                                       |  | abandor                        | ned                     |
| Single Well Amt.  Remarks: (If this is an application to deepen or producing zone and expected new producing zone)                        | plug back, briefly desc        | cribe work to be o                    | done, giving preser                          |                                | ON FILE ATTACHED        |
| Proposed casing program:  |                                | Approved casin                        | ng – To be filled i                          | n by State Geologist           |                         |
| amt. size wt./ft.   | cem.                           | amt.                                  | size   | wt./ft.                        | cem.                    |
| I, the undersigned, state that I am the and that I am authorized by said company to me that the facts stated therein are true, correct an | nake this report; and the dest | at this report was<br>of my knowledge | prepared under n                             | ny supervision and d           | (company), irection and |
| 2.1.1   |                                |                                       | SAMPLES F                                    | PEOLUBED                       |                         |
| oproval Date: 1-3-77  Oproved By: Wallace B. Long   |                                |                                       |  | NEQUIRED                       |                         |
| pproved By: Wallace B. Done   |                                |                                       |  |                                |                         |
| ote: This Permit not transferable to any other person or to any other location.   |                                |                                       | WATER SAMPL                                  | ES REQUIRED @:                 |                         |
| emit two copies to: Missouri Oil and Gas Counc<br>P.O. Box 250 Rolla, Mo. 65  |                                |                                       |  | r                              |                         |
| ne will be returned.  |                                |                                       |  |                                |                         |

| Owner:  | 20   | 6501   | Sur  | uely   |                 | _       |    |           |
|---|--|--|--|--|-----------------|---------|----|-----------|
| Lease Name: .   | ERD.   | n  | T5   |  | 12-5            | County, | BA | How       |
|   |  |  |  |  |                 |         |    | Range 32w |
|   |  |  |  |  |                 |         |    |           |
|   |  |  |  |  |                 |         |    |           |
|   |  |  |  |  |                 |         |    |           |
| SCALE<br>1" = 1000'   |  |  |  |  |                 |         |    |           |
|   |  |  |  |  |                 |         |    |           |
|   |  |  |  |  |                 |         |    |           |
|   |  |  |  |  |                 |         |    |           |
| REMARKS:  |  |  |  |  |                 |         |    |           |
|   |  |  |  |  |                 |         |    |           |
| On the a  |  | STRUCTION  |  | d well from the  | ne.             |         |    |           |
| two nearest lease<br>same lease comprequested is not<br>show all off-sett<br>lines with lease | se and section<br>bleted in or dr<br>in conforma<br>ing wells to t | n lines, and frilling to the sonce with the the proposed | rom the near<br>ame reservoir<br>applicable we<br>well. Do not | est well on the location of th | ne<br>on<br>es, |         |    | (SEAL)    |
| Remit two copie   |  | i Oil and Gas<br>x 250 Rolla, l                          |  |  |                 | -       |    |           |

Registered Land Surveyor

One will be returned.

## TEST BORING LOG

| Project                    | State of      | Misson     | ıri                         |                 |                    | Boring No. S-12 Sheet 1 of 1   |  |  |  |  |  |
|----------------------------|---------------|------------|-----------------------------|-----------------|--------------------|--|--|--|--|--|--|
|                            | E. R. D.      |            |                             |                 |                    | Surface Elevation Offset   |  |  |  |  |  |
| Address                    | Barton Co     | ounty      |                             |                 |                    | Date Started 1/5/77 Completed 1/7/77   |  |  |  |  |  |
| City & State               | Nevada,       | Missour    | ci                          |                 |                    | Driller J. Wright Rig CME-750  |  |  |  |  |  |
| Sec.                       | 35, T. 35     | 3 N., R    | . 32h                       |                 | oreviations:       | A.O. — Auger Only H.A. — Hollow Auger W.B. — Wash Bore  R.B. — Rock Bit S.S. — Split Spoon S.T. — Shelby Tube  C.W. — Core Water C.A. — Core Air F.B. — Finger Bit |  |  |  |  |  |
| DEPTH PENETRATION RECORD > |               |            |                             |                 | SAMPLE DESCRIPTION |  |  |  |  |  |  |
| FROM                       | то            | МЕТНОВ     | POCKET<br>PENETRO.<br>METER | NO. OF<br>BLOWS | CORE               | COLOR-MATERIAL-MOISTURE-CLAY CONSISTENCY SAND DENSITY  |  |  |  |  |  |
| 0.0'                       | 13.0'         | Air        |                             |                 |                    | Soil, red brown, clay  |  |  |  |  |  |
| 13.0'                      | 25.0'         | Air        |                             |                 |                    | Shale, light gray, sandy   |  |  |  |  |  |
| 25.0'                      | 30.0'         | Air        |                             |                 |                    | Siltstone, medium gray, soft, wet  |  |  |  |  |  |
| 30.0'                      | 67.0'         | Air        |                             |                 |                    | Sandstone, dark gray, shaly, pyritic   |  |  |  |  |  |
| 67.0'                      | 68.0'         | Air        |                             |                 |                    | Coal, shaly  |  |  |  |  |  |
| 68.0'                      | 70.0'         | Air        |                             |                 |                    | Underclay, soft  |  |  |  |  |  |
| 70.0'                      | 100.0'        | Air        |                             |                 |                    | Sandstone, shale, soft layers, pyritic   |  |  |  |  |  |
| 100.0'                     | 140.0'        | Air        |                             |                 |                    | Shale, dark gray, sandy, fissile, soft, "muddy"  |  |  |  |  |  |
| 140.0'                     | 145.0'        | Air        |                             |                 |                    | Shale, carbonaceous, "gassy"   |  |  |  |  |  |
| 145.0'                     | 158.0'        | Air        |                             |                 |                    | Chert, gray brown, mottled, white, greenish  |  |  |  |  |  |
|                            |               |            |                             |                 |                    | gray shale   |  |  |  |  |  |
| 158.0'                     | Total De      | pth        |                             |                 |                    |  |  |  |  |  |  |
|                            |               | •          |                             |                 |                    |  |  |  |  |  |  |
|                            |               |            |                             |                 |                    |  |  |  |  |  |  |
|                            |               |            |                             |                 |                    |  |  |  |  |  |  |
|                            |               |            |                             |                 |                    |  |  |  |  |  |  |
| REMARKS:                   | (Casing, Wate | r Loss, Et | c.)                         |                 |                    | Water Level Time Date (Completion)   |  |  |  |  |  |
|                            |               |            |                             |                 |                    |  |  |  |  |  |  |

Layne-Western Company, Inc.

1 W 50 A

| STATE_                                  | FR & COMP WILDCAT MISSOURI 8-5-93  | _MAP NO | s-T-R35-33N-32W                 | S    |  |  |  |
|---|--|---------|---------------------------------|------|--|--|--|
| OPER_                                   | MISSOURI GEOL SURVEY   |         | SPOT_ APP N/2 N/2 N/2           | INIT |  |  |  |
|   | P O BOX 250, ROLLA, MO   |         | coBARTON                        | S    |  |  |  |
| WELL_                                   | 12-S ERDA-TS   |         | ELEV 942 GR                     | FIN  |  |  |  |
| CONTR.                                  | LAYNE WESTERN  |         | 15' fn1 & 2700' fe1 of Se       | C    |  |  |  |
| FIELD_                                  | WC   |         |                                 |      |  |  |  |
| IP                                      | DGA  |         |                                 |      |  |  |  |
| *************************************** | API 24-011-20014   | -       | TOPS NOT AVAILABLE              |      |  |  |  |
|   | 1-5-77   |         | RTD 158 + 78<br>I'D IN CHEROKEE | 4    |  |  |  |
| Show<br>RTD                             | rf csg TAR @ 80 Ft; Show Gas @ 145 Ft 158, log A FIRST REPORTED & COMPLETED 1-6-77 |         | COMP ISSUED 8-29-77             |      |  |  |  |

